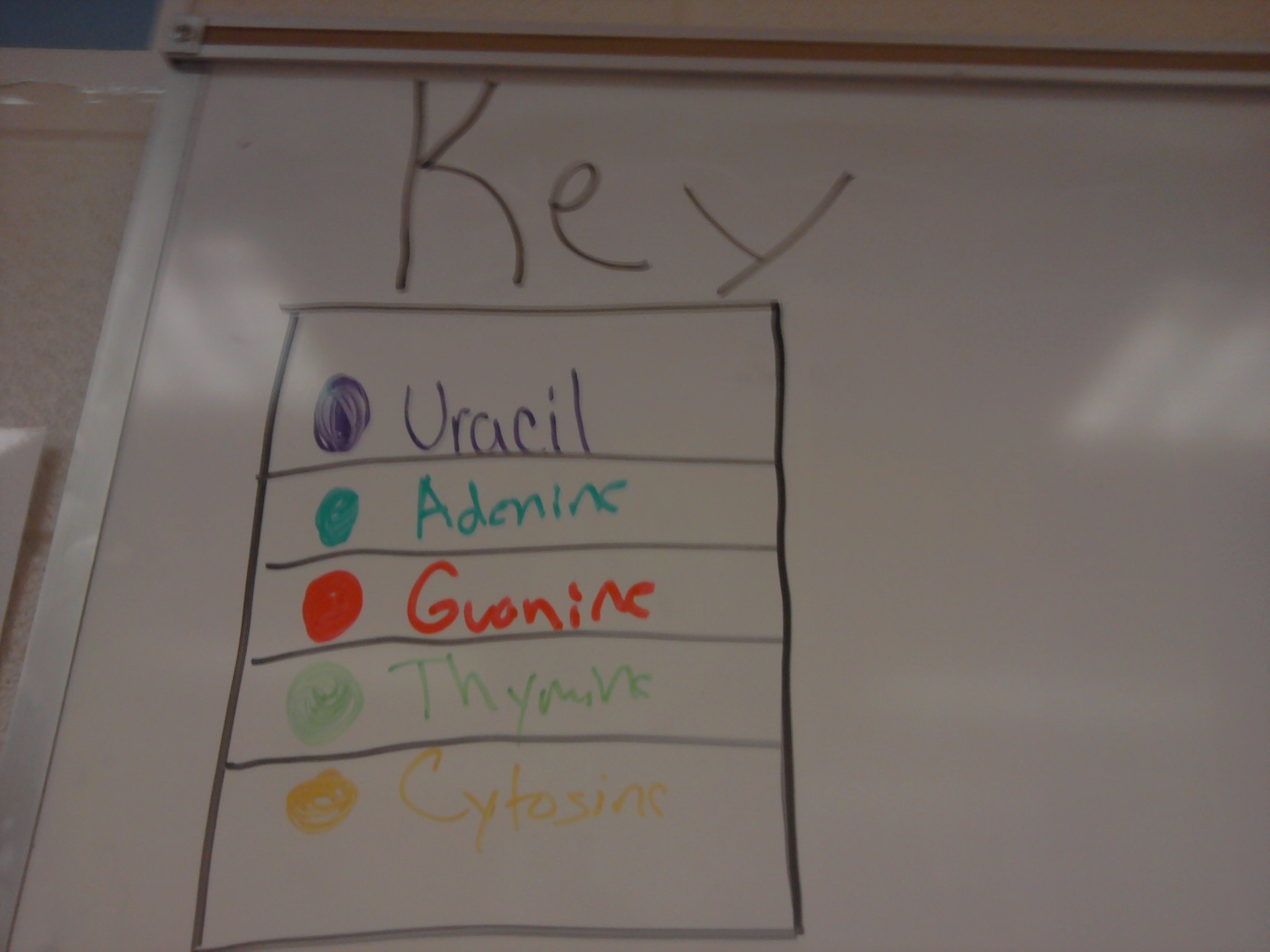
* Transcription-segments of DNA serve as templates to produce complementary RNA molecules. Transcription is basically the reproduction of RNA. Transcription is what changes Thymine to Uracil. RNA is produced in the nucleus of the cell. It then moves to the cytoplasm to play a role in the production of protein. RNA is needed in the production of protein. The process of transcription is very similar to making new DNA. The main strand of DNA gets split and the new portion is made. Well, transcription is very similar.
* You start off with a full strand of DNA. An enzyme known as RNA polymerase (similar to DNA Polymerase) starts to separate the DNA strand. Using one portion of the DNA strand, the RNA Polymerase assembles nucleotides into a complementary strand of RNA. Having the ability to actually copy DNA sequence into RNA makes it possible for a single gene to produce hundreds or even thousands of RNA molecules. This is important in the making of your genetic material. This is how you are different from others.
* RNA polymerase doesn’t bind to DNA in just a random place. The enzyme binds to things called promoters. Promoters are regions of the DNA that have specific base sequences. Promoters are signals in the DNA molecule that show RNA polymerase exactly where to begin making RNA. It also tells it when to stop using similar signals.
* Another part of RNA making are introns and exons. An intron is a portion of RNA that is cut out and discarded. I’m sure you can guess what the exons are. An exon is the remaining piece after an intron is removed. After these pieces are separated, they splice back together to form the final strand of RNA.